DOCUMENT RESUME

ED 314 782 CS 506 997

AUTHOR Greenbaum, Howard H.; Kaplan, Ira T.
TITLE A Metatheory of Organizational Group Behavior.
PUB DATE Nov 89
NOTE 27p.; Paper presented at the Annual Meeting of the Association for Business Communication (Las Vegas, NV, November 5-9, 1989).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143) -- Information Analyses (070)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Communication Research; *Group Behavior; Higher Education; Models; Organizational Communication; *Research Design
IDENTIFIERS *Metatheory; *Organizational Behavior; Small Group Communication

ABSTRACT

This paper focuses on the organizational group, noting the lack of an integrated theoretical base, describing the nature of group behavior theories, and suggesting the employment of a metatheory framework to improve both the theoretical integration and the practical application of group behavior research. The paper first considers four general approaches to group behavior: field theory, exchange theory, interaction theory, and systems theory. It then proposes a general conceptual framework or metatheory for classifying the variables addressed in specific theories of group behavior, and for organizing and summarizing the findings of small group research. The paper uses the metatheory to analyze and compare four systems theories of group behavior, and to integrate the results of eleven illustrative research studies. Finally, the paper argues that the metatheory approach serves both to integrate research findings and to facilitate the identification of variables that affect group performance. One figure and four tables of data are included; 56 references are attached. (SR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED314782

A Metatheory of Organizational Group Behavior

Howard H. Greenbaum
Hofstra University

Ira T. Kaplan
Hofstra University

The Association for Business Communication
1989 International Conference
Las Vegas, Nevada
November 5-9, 1989

CS506997

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Howard H. Greenbaum
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

A Metatheory of Organizational Group Behavior

A general conceptual framework or metatheory is proposed for classifying the variables addressed in specific theories of group behavior, and for organizing and summarizing the findings of small group research. The metatheory is used to analyze and compare four systems theories of group behavior, and to integrate the results of eleven illustrative research studies. It is argued that the metatheory approach serves both to integrate research findings and to facilitate the identification of variables that affect group performance.

This paper focuses on the organizational group, noting the lack of an integrated theoretical base, describing the nature of group behavior theories, and suggesting the employment of a metatheory framework to improve both the theoretical integration and the practical application of group behavior research. The organizational group has been defined as a collection of three or more members who interact more or less regularly over time, are psychologically cognizant of one another, perceive themselves as a group, and are embedded within a network of interlocking tasks, roles, and expectations (Jablin & Sussman, 1983). Permanent formal groups in the organization include task or production groups (e.g., factory, warehouse, office, sales), specialized decision-making groups (e.g., accounting, personnel, purchasing), and various general management groups, such as the executive committee and the board of directors. In addition to these permanent formal groups, organizations contain temporary task groups and informal social groups.

The disorganized state of group behavior theory has been cited frequently as a major obstacle to the meaningful integration of research findings. Twenty years ago, McGrath and Altman (1966, p. 68) noted that "although we have a very high volume of research activity, we have not had a rapid growth of a body of knowledge, because we are not gaining empirical evidence in a form which permits us to integrate it cumulatively with prior evidence." Fisher and Hawes (1971, p. 444) later agreed that small group research "lacks coordinated efforts in a meaningful and cumulative program of developing knowledge," and added (p.453) that "small group research desperately needs a commonly recognized foundation upon which a meaningful theoretical structure can be grounded." The confused state of group behavior theory was reaffirmed by Cragan and Wright (1980) in their review of small group communication research in the 1970's and by Frey

(1988) in his review of the 1980's. Frey observed that although theory has assumed a central role in small group communication research, a variety of theories from different fields are employed, with little agreement about which theories are most useful.

The lack of a common theoretical base for group behavior is also apparent in textbooks on management, organizational behavior (OB), and industrial/organizational psychology (I/O). The present authors surveyed 37 texts published between 1983 and 1989, including 12 introductory management texts, 16 organizational behavior texts, and 9 I/O psychology texts, and drew the following conclusions:

1. Most introductory management textbooks did not discuss theories of group behavior. The exceptions were Hellriegel and Slocum (1986) and Robbins (1988), both of which used Homans' (1950) model to explain group behavior.

2. Organizational behavior textbooks presented group behavior theories more frequently. Four of the 16 OB texts provided comprehensive models of group behavior (Robbins, 1989; Steers, 1988; Mitchell & Larson, 1987; and Szilagi & Wallace, 1987), and one text (Organ & Bateman, 1986) used the social exchange theory of Thibaut and Kelley (1959).

3. Three of the 9 I/O psychology texts (Wexley & Yukl, 1984; Howell & Dipboye, 1986; Siegel & Lane, 1987) employed a model to describe group behavior; in each case the model was an adaptation of Hackman and Morris's (1975) input-process-output model.

On the basis of this survey, it appears fair to say that group behavior is generally taught in terms of separate variables (e.g., size, norms, cohesion), rather than in terms of an integrated model that includes both the structure and

dynamics of groups.

The purpose of this paper is to present a conceptual framework or metatheory that can render group behavior theory and research more comprehensible and more available for managerial problem solving. This objective will be accomplished by (1) briefly reviewing a variety of group behavior theories, (2) describing the metatheory approach, (3) illustrating the use of a metatheory to compare and analyze four popular systems theories of group behavior, (4) providing examples of empirical findings incorporated into the metatheory, and (5) discussing the practical utility of creating a knowledge base that is organized according to the metatheory.

Theories of Group Behavior

Mabry and Barnes (1980) organized a variety of group behavior theories under the four approaches of field theory, exchange theory, interaction theory, and system theory. They noted that each approach contributes to the study of communication in small groups, that no approach is comprehensive, and that they are not mutually exclusive.

Field theory focuses on the relationships between member and leader characteristics (e.g., abilities, attitudes, personality) and the tangible outcomes of group activity (e.g., amount and quality of work completed, interpersonal relations, member satisfaction). Limited attention is paid to analyzing the content, frequency, duration, or impact of messages communicated between group members. Prominent theorists who take this approach include French and Raven (1968), Fiedler (1958), Shaw (1954), Bavelas (1950), Festinger, Schacter, and Back (1950), and Lewin, Lippit, and White (1939).

Exchange theory uses an economic analogy to explain the outcomes of human interaction. Interpersonal relationships are assessed in terms of reward and

cost properties for their participants. We remain members of a group as long as our rewards outweigh the current and projected costs of group membership. Variables influencing group behavior come from both internal (endogenous) and external (exogenous) sources of control. Theorists identified with the exchange theory approach include Thibaut and Kelley (1959), Homans (1958), Schutz (1958), and Festinger (1954).

Interaction theory, pioneered by Bales (1950), has contributed to understanding communicative activity in groups and the development of group social structure. Bales separated communicative behavior into task and socio-emotional activity. Task activity includes asking for and giving information, opinions and suggestions; and socio-emotional activity includes indicating agreement or disagreement, showing antagonism or solidarity, showing tension and enjoying tension releases.

In 1970 Bales proposed a three dimensional model to account for interpersonal behavior in small groups with each dimension represented by a continuum on which people can be positioned according to their behavior as group members in respect to dominance/submissiveness, friendly/unfriendly, and task-oriented vs. emotional expressiveness. Further, this school of group behavior theory has led in the study of group development -- i.e., the thesis that small groups undergo systematic and predictable shifts in interaction style over time. In addition to Bales, theorists identified with this school include Mabry (1975), Morris (1966), Crowell and Scheidel (1961), Mann (1959) and Strodtbeck and Mann (1956).

The systems theory approach to small group behavior study is a method for systematically putting together assumptions about relationships between sets of social processes or variables. For example, a group social system can be

conceptualized in terms of inputs, throughputs, and outputs; with group inputs being composed of member characteristics, tasks, and physical and social environment factors; group throughputs being those elements of behavior that facilitate progress toward a goal, as communication between members; and group outputs being task accomplishment and change in attitudes. Mabry and Barnes (1980) based their systems theory of group behavior on Stogdill's (1959) approach. Other systems theories of group behavior are discussed below.

The Metatheory Approach

A metatheory is a general conceptual framework in terms of which more specific theories can be discussed. McGrath (1984) distinguishes a metatheory, which defines classes of variables and the logical relations among them, from substantive theories, which describe specific sets of relations between specific sets of variables. He presented a metatheory for the study of groups, which does not specify any particular theory, but instead reflects a way of looking at the problem of group behavior that encompasses a whole family of substantive theories. McGrath's model identifies four levels of inputs to the group interaction process: task, individual, group, and environmental. Task inputs define the job that the group is supposed to accomplish. Individual inputs are the biological, social, and psychological properties of the group members. Group inputs describe the patterned relations among group members, and environmental inputs are the physical, socio-cultural, and technological properties of the group's environment. There are also four levels of output from the group interaction process. Again, they are identified as task, individual, group, and environmental.

The model employed in this paper was developed by Greenbaum, Kaplan, and Metlay (1988) as an extension of McGrath's conceptual framework. It resembles McGrath's model in that it includes input, process, and output stages, and task, individual, group, and environmental variables. It differs from McGrath's model, however, in that it analyzes the process stage into the four levels of task, individual, group, and environmental variables, and it adds a feedback stage after the output stage, which is also analyzed into those four levels. The present authors have found that feedback is best classified on the basis of its content, rather than its source or destination, e.g., feedback from the group to the individual about task performance is classified as task feedback. This model is illustrated in Figure 1.

Insert Figure 1 about here

Application of the Metatheory to Specific Group-Behavior Theories

The metatheory can be used to compare and analyze different theories of group behavior. This application of the metatheory is illustrated for four theories that represent the systems theory approach. Systems theories were chosen for the following reasons:

1. Systems theory is already part of management theory. Most management texts explain systems theory, and certain texts use it as an organizing principle, e.g., Certo (1989), Kast and Rosenzweig (1985), and Koontz, O'Donnell, and Weirich (1980).
2. The concepts and terminology of systems theory may be accepted more readily by managers and researchers than the social-psychological terms used in field, exchange, or interaction theories.

3. The metatheory is itself essentially a general systems theory and therefore easily accommodates more specific systems theories.

Selection of Four Systems Theories

A review of the literature identified twelve systems theories of group behavior: Homans (1950), Stogdill (1959), McGrath (1964), McGrath and Altman (1966), Hackman and Morris (1975), Tubbs (1984), Mabry and Barnes (1980), Jewell and Reitz (1981), Jablin and Sussman (1983), McGrath (1984), Gladstein (1984), and Buller (1986). These authors represent the disciplines of sociology, social psychology, industrial/organizational psychology, communication, and management. Each author presents a model of group behavior that uses systems concepts similar to input, process, output, feedback, and environment.

Our discussion of systems theories is limited to those of Homans (1950), McGrath (1964), Hackman and Morris (1975), and Gladstein (1984). Homans' (1950) early explanation of group behavior continues to be of interest, as evidenced by its use in recent management texts (Hellriegel & Slocum, 1986; Robbins, 1988). McGrath has been a leading scholar in this field for over thirty years, and his 1964 theory is the basis of Hackman and Morris's (1975) influential model. Gladstein's (1984) model is an adaptation of McGrath's and Hackman and Morris's, revised on the basis of her own field research.

Analysis of Specific Systems Theories

The major variables in each of the selected systems theories are listed in Table 1 in a form that facilitates comparison to the metatheory. Homans' (1950) model comprises an internal system and an external system. The internal system includes the sentiments, activities, interactions, and norms that develop within the group. Sentiments are feelings like anger and happiness that constitute the emotional climate of the group. Activities are task and personal

behaviors that the group members perform. Interactions are communications among group members. Norms are unwritten standards of behavior or expectations that develop in the group over time. The external system, in contrast, includes outside conditions that existed before the group was formed, such as management styles, technology, member values, and organizational structure. The external system influences the internal system, which in turn affects productivity, member satisfaction, absenteeism, and turnover. These effects provide feedback to the external system, which may result in action to modify the internal system.

McGrath's (1964) theory consists of input, process, output, and feedback. There are three levels of input variables: group composition (member characteristics), group structure (positions and roles), and task and environment. The process stage contains only one level of variables, group interaction. There are three levels of output variables: effects on members (changes in abilities and attitudes), group development (changes in positions and roles), and task performance (quantity, quality, and speed). Although feedback is not explicitly mentioned, it is suggested by return arrows in a flow diagram of the model, where each of the three outputs are shown to alter the corresponding input conditions, which then affect subsequent group behavior.

Hackman and Morris (1975) developed a more specific adaptation of McGrath's (1964) model, based on the following assumptions: (1) No general theory of small group effectiveness has appeared and a general and unified theory is currently out of reach -- and is likely to remain so; (2) No single theory can deal simultaneously with the complexity of factors that can affect group task effectiveness; and (3) It may be necessary to settle for a number of smaller theories, each of which is relevant to a specific aspect of the performance process. Their model consists of focal input variables, group interaction

process, summary variables, critical task contingencies, and group performance effectiveness, most of which are shown in Table 1. The focal input variables are group task design, group composition, and group norms. The summary variables are level and utilization of member knowledge and skill (which is influenced mainly by group composition), nature and utilization of task performance strategies (determined primarily by group norms), and level and coordination of member effort (influenced by group task design). Critical task contingencies specify which summary variables are important determiners of performance effectiveness for the task at hand. Group performance effectiveness is the output. Feedback is not addressed in this model.

Gladstein (1984) provides a group behavior theory that resulted from a field study designed to test the basic McGrath (1964) model, as modified by Hackman and Morris (1975). Gladstein's model is composed of input, process, and output variables, as shown in Table 1. The inputs, referred to as exogenous variables, are the context within which the group functions (rewards, training, supervision, etc.). The processes (intragroup processes, boundary management, leadership, and structuring activities) were classified as endogenous variables, i.e., intrinsic to the group. The outputs, also considered endogenous variables, consisted of actual sales revenues and subjectively rated effectiveness.

The general impression conveyed by Table 1 is that there are both similarities and differences among the four models of group behavior that we have classified as systems theories. The differences are both terminological and conceptual. Some variables are considered in every theory, but they may be referred to by different names. Every theory has its input, process, and output stages, but not necessarily under those names. Homans' internal system corresponds to the summary variables of Hackman and Morris, in the sense that

they can all be subsumed under the process stage of the metatheory. However, Homans' concepts of sentiments, activities, interactions, and norms, differ from the summary variables (member knowledge and skill, task performance strategies, and effort) emphasized by Hackman and Morris.

Insert Table 1 about here

Table 2 identifies the theories that address each category of variables in the metatheory. The four stages of group behavior labeled Input, Process, Output, and Feedback correspond to the four successive columns in Table 1. Within each stage, variables are further analyzed into Task, Individual, Group, and Environmental levels. Variables included by all of the theories can be seen, as well as variables treated by few theories. Thus all four theories include Task, Individual, and Group Input, Group Process, and Task Output. Feedback is considered explicitly by Homans, implicitly by McGrath, but not by Hackman and Morris nor by Gladstein. Only Gladstein considers an explicit process of interaction with the environment (apart from input and output), viz., boundary spanning. The only process in McGrath's model is group interaction. The models of Hackman and Morris, and of Gladstein are the most specialized, addressing only seven and eight cells, respectively.

Insert Table 2 about here

Using the Metatheory to Summarize the Results of Empirical Studies

In addition to summarizing and comparing theories of group behavior, the metatheory framework can also be employed to integrate the findings of empirical research. This application is illustrated for eleven studies, whose results are summarized in Tables 3 and 4. Table 3 lists the independent and dependent variables that were investigated and the relationships that were found between them. The independent variables were ascendent personality, emotional stability, compatibility, authoritarian personality, pressure toward uniformity, group homogeneity, and performance feedback. The dependent variables were rate of communication, transmission of information, task performance, perception of leader, conformity to norm, communication pattern, opinion change,and product loss. The numbered statements in Table 3 describe the empirical relationships between independent and dependent variables. For example, Statement 3 asserts that according to Shaw (1971) task groups composed of compatible members performed better than groups of incompatible members; compatibility was the independent variable and task performance, the dependent variable.

Insert Table 3 about here

Table 4 classifies the variables in Table 3 into the cells of the metatheory. The numbers in parentheses after each variable in Table 4 refer to the studies in which that variable was investigated. It follows that variables designated by the same numbers were investigated in the same studies, which are identified in Table 3. Thus, the Individual Input "ascendent personality (1, 5)" affected rate of communication, transmission of information, task

performance, and conformity to norm, as described in Relationships 1 and 5. Table 4 is an index to the empirical results summarized in Table 3 in the same way that Table 2 is an index to the theories summarized in Table 1. Together these four tables illustrate how the metatheory approach can organize group behavior theory and data to facilitate their use by researchers and managers alike.

Insert Table 4 about here

Practical Applications

A practical benefit of the metatheory approach is that it enables the identification of independent variables related to desired outcomes. For example, a consultant or manager interested in improving group performance could refer to summary tables that list the input, process, and feedback variables related to task output, as well as the empirically determined relationships between them. He or she could then decide which of these variables were most relevant to the particular problem at hand. If desired, one could retrieve the original studies to learn more about the variables and relationships of interest.

Use of the metatheory would be facilitated by the development of computerized data banks based on the 16-cell framework. True, this would be a very large project, but it would make readily accessible a large body of useful information. Our present computerized bibliographical files have advanced library research to a great extent, and future years will give rise to even greater achievements. One such achievement would be the construction of data banks on group behavior, based on the metatheory framework and accessible to computers employed by managers, consultants, and researchers. When this system

is developed, it would significantly enhance the use of organizational group behavior theory. In fact, it would be a great advance over our current state.

Summary

Many scholars have called attention to the disorganized state of group behavior theory and to the lack of a generally accepted foundation for the integration of research findings. This condition has discouraged the full utilization of group behavior theory and has resulted in a limited teaching of an integrative theory of group behavior. Accordingly, the purpose of this paper was to present a logical framework for developing an integrated model of group behavior, a framework that can render group behavior theory more user-friendly and thereby more readily available for managerial problem-solving.

First, we considered four general approaches to group behavior described by Mabry and Barnes (1980): field theory, exchange theory, interaction theory, and systems theory, noting that each approach comprised a set of related theories, but that none constituted an overall theory of group behavior.

Next, we presented an extension of McGrath's (1984) metatheory approach, which divided group behavior into four stages: input, process, output, and feedback. Each stage was analyzed into four levels of variables: task, individual, group, and environment, thereby dividing the metatheory framework into 16 cells.

Then, implementation of the metatheory was illustrated with the aid of four tables: Table 1 summarized the variables of four systems theories in a format that facilitated comparison with the metatheory, and Table 2 indicated which cells of the metatheory were addressed by each systems theory; Table 3 summarized the findings of eleven representative studies of group behavior, and Table 4 classified the variables in those studies into the cells of the

metatheory. These illustrations demonstrated how a metatheory approach could be used as an integrative tool for group behavior research.

Finally, it was noted that the metatheory approach has a practical application for consultants and managers. Specifically, it facilitates the identification and assessment of variables related to desired outcomes. Much work remains to be done, however, to incorporate empirical results into the proposed metatheory framework.

References

Bales, R. (1950). Interaction process analysis: A method for the study of small groups. Cambridge, MA: Addison-Wesley.

Bales, R. (1970). Personality and interpersonal behavior. New York: Holt, Rinehart & Winston.

Bavelas, A. (1950). Communication patterns in task-oriented groups. Journal of the Acoustical Society of America, 22, 725-730.

Berkowitz, L. (1953). Personality and group position. Sociometry, 19, 210-222.

Buller, P. F. (1986). The team building-task performance relation: Some conceptual and methodological refinements. Group and Organization Studies, 11(3), 147-168.

Carter, N., Holmstrom, A., Simpanen, N., & Melin, L. (1988). Theft reduction in a grocery store through product identification and graphing of losses for employees. Journal of Applied Behavior Analysis, 21, 385-389.

Certo, S. C. (1989). Principles of modern management: Functions and systems, (4th ed.). Boston: Allyn & Bacon.

Cervin, V. (1956). Individual behavior in social situations: Its relation to anxiety, neuroticism, and group solidarity. Journal of Experimental Psychology, 60, 175-181.

Cragan, J. F., & Wright, D. W. (1980). Small group communication research of the 1970's: A synthesis and critique. Central States Speech Journal, 31, 197-213.

Crowell L., & Scheidel, T. M. (1961). Categories for analysis of idea development in discussion groups. Journal of Social Psychology, 54, 155-168.

Festinger, L. (1954). A theory of social comparison processes. Human Relations, 2, 117-140.

Festinger, L., Schacter, S., & Bach, K. (1950). Social pressures in informal groups. New York: Harper & Row.

Festinger, L., & Thibaut, J.W. (1951). Interpersonal communications in small groups. Journal of Abnormal and Social Psychology, 46, 92-99.

Fiedler, F. (1958). Leader attitudes and group effectiveness. Urbana, IL: University of Illinois Press.

Fisher, B. A., & Hawes, L. C. (1971). An interact system model: Generating a grounded theory of small group. Quarterly Journal of Speech, 57, 444-453.

French, J. R. P., & Raven, B. (1968). The bases of social power in group dynamics: Research and theory (3rd ed.). (pp.259-269). D. Cartwright and A. Zanger (Eds.) New York: Harper & Row.

Frey, L. R. (1988). Meeting the challenges posed during the 70's: A critical review of small group communication research during the 80's. Paper presented at the annual meeting of the Speech Communication Association, New Orleans.

Gladstein, D. L. (1984). Groups in context: A model of task group effectiveness. Administrative Science Quarterly, 29, 499-517.

Greenbaum, H. H., Kaplan, I.T., & Metlay, W. (1988). Evaluation of problem-solving groups: The case of quality circle programs. Group and Organization Studies, 13(2), 133-147.

Hackman, J. R., & Morris, C. C. (1975). Group tasks, group interaction process, and group performance effectiveness: A review and proposed integration. In L. Berkowitz (Ed.), Group processes: Papers form advances in experimental social psychology, 1-51.

Haythorn, W. (1953). The influence of individual members on the characteristics of small groups. Journal of Abnormal and Social Psychology, 48, 276-284.

Haythorn, W., Couch, A., Haefner, D., Langham, P., & Carter, L. (1956a). The behavior of authoritarian and equalitarian personalities in groups. Human Relations, 9, 57-74.

Haythorn, W., Couch, A., Haefner, D., Langham, P., & Carter, L. (1956b). The effects of varying combinations of authoritarian and equalitarian leaders and followers. Journal of Abnormal and Social Psychology, 53, 210-219.

Hellriegel, D., & Slocum, J. W. Jr. (1986). Management (4th ed.). Reading, MA: Addison-Wesley.

Homans, G. C. (1950). The human group. New York: Harcourt, Brace, & World.

Homans, G. C. (1958). Social behavior as exchange. American Journal of Sociology, 63, 597-606.

Howell, W. C., & Dipboye, R. L. (1986). Essentials of industrial and organizational psychology (3rd ed.). Chicago: Dorsey.

Jablin, F. M., & Sussman, L. (1983). Organizational group communication: A review of the literature and model of the process. In H. H. Greenbaum, R. L. Falcione, & S. A. Hellweg, Organizational Communication: Abstracts, analysis, and overview, (vol. 8, pp. 11-41). Beverly Hills, CA: Sage Publications, Inc.

Jewell, L. N., & Reitz, H. J. (1981). Group effectiveness in organizations. Glenview, IL: Scott, Foresman.

Kast, F. E., & Rosenzweig, J. E. (1985). Organization and management (4th ed.). New York: McGraw-Hill Book Co.

Koontz, H., O'Donnell, C., & Weirich, H. (1980). Management (7th ed.). New York: McGraw-Hill.

Lewin, K., Lippit, R., & White, R. (1939). Patterns of aggressive behavior in experimentally created social climates. Journal of Social Psychology, 10, 271-299.

Mabry, E. A. (1975). Sequential structure of interaction in encounter groups. Human Communication Research, 1, 302-307.

Mabry, E. A. & Barnes, R. E. (1980). The dynamics of small group communication. Englewood Cliffs, NJ: Prentice Hall.

Mann, R. D. (1959). A review of the relationships between personality and performance in small groups. Psychological Bulletin, 56, 241-270.

McDavid, J. W., & Sistrunk, E. (1964). Personality correlates of two kinds of conformity behavior. Journal of Personality, 32, 420-435.

McGrath, J. E. (1964). Social psychology: A brief introduction. New York: Holt, Rinehart, & Winston.

McGrath, J. E. (1984). Groups:Interaction and performance. Englewood Cliffs, New Jersey: Prentice-Hall.

McGrath, J. E., & Altman, I. (1966). Small group research: A synthesis and critique of the field. New York: Holt, Rinehart, & Winston.

Mitchell, T. R., & Larson, J. R. (1987). People in organizations: An introduction to organizational behavior (3rd ed.). New York: McGraw-Hill.

Morris, C. G. (1966). Task effects on group interaction. Journal of Personality and Social Psychology, 4(5), 545-554.

Organ, D., & Bateman, T. (1986). Organizational Behavior (3rd ed.). Plano, TX: Business Publications.

Robbins, S. P. (1988). Management (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Robbins, S. P. (1989). Organizational behavior: Concepts, controversies, and

applications, Englewood Cliffs, NJ: Prentice-Hall.

Schutz, W. (1958). FIRO: A three dimensional theory of interpersonal behavior. New York: Holt, Rinehart, & Winston.

Shaw, M. E. (1954). Some effects of problem complexity upon problem solution efficiency in different communication nets. Journal of Abnormal and Social Psychology, 48, 211-217.

Shaw, M. E. (1971). Group dynamics: The psychology of small group behavior. New York: McGraw-Hill.

Siegel, L., & Lane, I. M. (1987), Personnel and organizational psychology (2nd ed.). Homewood, IL: Irwin.

Steers, R. M. (1988). Introduction to organizational behavior (3rd ed.). Glenview, IL: Scott, Foresman.

Stogdill, R. (1948). Personal factors associated with leadership: A survey of the literature. Journal of Psychology, 25, 35-71.

Stogdill, R. (1959). Individual behavior and group achievement. New York: Oxford University Press.

Strodtbeck, F. L., & Mann, R. D. (1956). Sex role differentiation in jury deliberations. Sociometry, 19, 3-11.

Szilagi, A. D., Jr., & Wallace, M. J., Jr. (1987). Organizational behavior and performance (4th ed.). Glenview, IL: Scott, Foresman.

Thibaut, J. W., & Kelley, H. H. (1959). The social psychology of groups. New York: Wiley.

Tubbs, S. (1984). A systems approach to small group interaction (2nd ed.). Reading MA: Addison-Wesley.

Wexley, K. N., & Yukl, G. A. (1984). Organizational behavior and personnel psychology (Revised ed.). Homewood, IL: Irwin.

Table 1
Major Variables in Four Systems Theories of Group Behavior

Homans (1950) as Interpreted by Hellriegel and Slocum (1986)

External System	Internal System	Effects	Feedback
Management	Sentiments	Productivity	From effects to external system
Technology	Activities	Member satisfaction	
Member values	Interactions	Absenteeism	
Organizational structure	Norms	Turnover	

McGrath (1964)

Input	Process	Output	Feedback
Group composition	Group Process	Effects on group members	Outputs alter corresponding inputs
Group structure		Group development	
Task and environment		Task performance	

Hackman and Morris (1975)

Focal Input Variables	Summary Variables[a]	Output	Feedback
Group composition	Use of member knowledge and skill	Performance effectiveness	(not addressed)
Group norms	Task performance strategies		
Group task design	Level and co-ordination of member effort		

Gladstein (1984)[b]

Inputs	Process	Outputs	Feedback
Rewards	Intragroup processes	Sales revenues	(not addressed)
Training	Boundary management	Subjectively rated effectiveness	
Supervision	Leadership		
Skills, Mix	Structuring activities		
Job experience			
Organizational experience			
Market growth			
Group size			

a. The Hackman and Morris model includes a concept called "critical task contingencies," to specify which summary variables determine performance effectiveness for the task at hand.

b. Gladstein also labels inputs, "exogenous;" process and outputs, "endogenous."

Table 2
Theories that Address Each Category of Variables in the Metatheory Framework

Level of Analysis	Stage of Group Behavior			
	Input	Process	Output	Feedback
Task	Homans McGrath H & M Gladstein	Homans H & M 	Homans McGrath H & M Gladstein	Homans McGrath
Individual	Homans McGrath H & M Gladstein	Homans H & M 	Homans McGrath Gladstein	Homans McGrath
Group	Homans McGrath H & M Gladstein	Homans McGrath H & M Gladstein	Homans McGrath 	Homans McGrath
Environment	Homans McGrath Gladstein	 Gladstein	Homans McGrath 	Homans McGrath

Note. The theories cited in this table are Homans (1950), McGrath (1964), Hackman and Morris (1975), and Gladstein (1984).

Table 3
Empirical Relationships Between Variables in Selected Studies of Group Behavior

Empirical Relationship	Independent Variable	Dependent Variable
1. Ascendent group members had higher initial rates of communication, transmitted less task-relevant information, and had higher rates of individual subtask completion than members rated low on ascendancy (Berkowitz, 1953).	Ascendent personality	Communication rate Information transmission Task performance
2. More emotionally stable members had a more positive effect on group outcomes (Cervin, 1956; Haythorn, 1953; Stogdill, 1948).	Emotional stability	Task performance
3. Task groups composed of compatible members performed better than groups of incompatible members (Shaw, 1971).	Compatibility	Task performance
4. Leaders with high authoritarian scores were rated by other group members as less sensitive, striving less for approval, less equalitarian, more autocratic, and having less effective intelligence (Haythorn et al., 1956a, 1956b).	Authoritarian personality	Perception of leader
5. More ascendent people are less likely to conform to group norms (McDavid & Sistrunk, 1964)	Ascendent personality	Conformity to norm
6. The greater the pressure toward uniformity, and the greater the perception of homogeneous group composition, the greater was the tendency to communicate to members holding extreme opinions, and the greater was the change toward uniformity of opinion (Festinger & Thibaut, 1951).	Pressure toward uniformity Group homogeneity	Communication pattern Opinion change
7. Providing employees with feedback about missing inventory reduced product loss by 75% (Carter et al., 1988).	Performance feedback	Product loss

Table 4
Metatheory Analysis of Specific Variables Investigated in Selected Studies of Group Behavior

Level of Analysis	Stage of Group Behavior: Input	Process	Output	Feedback
Task			Task performance (1, 2, 3, 7)	Performance feedback (7)
Individual	Personality: Ascendent (1, 5) Authoritarian (4) Emotionally stable (2)		Change in opinion (6) Perception of leader (4)	
Group	Composition: Compatibility (3) Homogeneity (6)	Communication rate (1) Information transmission (1) Conformity to norm (5) Communication pattern (6)		
Environment	Pressure toward uniformity (6)			

Note. The numbers in parentheses after each variable refer to the corresponding studies in Table 3.

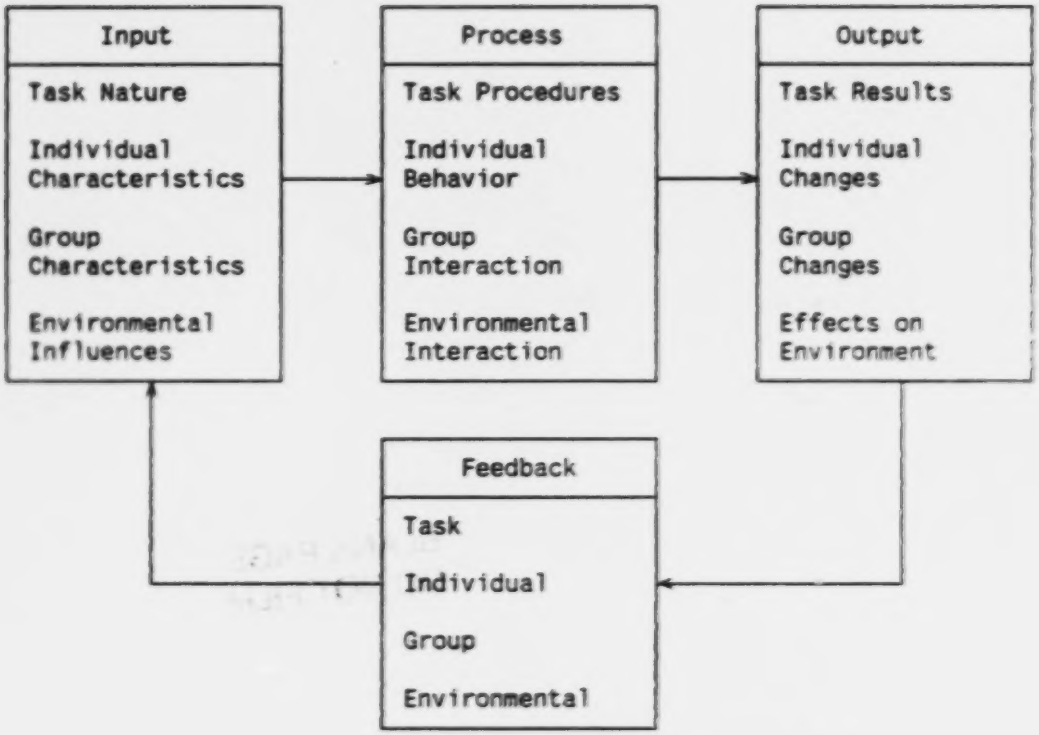

Figure 1. A conceptual framework for the study of groups.